

October 23, 2015

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Article number: 7015 1520 0003 0792 0060

Paul Zel, CHMM, Director
Environmental, Health and Safety
Memorial Sloan Kettering Cancer Center
1275 York Avenue, Box 440
New York, NY 10021

RE: Notice of Violation RCRA/3007 Information Request Letter
Memorial Sloan Kettering
EPA ID#:NYR000133033
EPA ID#: NYD0752651157

Dear Mr. Zel:

The U.S. Environmental Protection Agency (EPA) is charged with the protection of human health and the environment under the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Sections 6901 et seq.

On or about July 1-2, 6-8, 2015, a duly authorized representative of the U.S. Environmental Protection Agency conducted a compliance evaluation inspection of Memorial Sloan Kettering facilities located at 417 E 68th Street and 1275 York Avenue, New York, NY 10021, pursuant to Section 3007 of RCRA, 42 U.S.C. Section 6927. During the inspection, violations of RCRA were observed.

Pursuant to RCRA, as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), the EPA promulgated rules, regulations, and standards governing the handling and management of hazardous waste as set forth in 40 C.F.R. Parts 260-272. For the purposes of this Notice of Violation and Information Request, the hazardous waste regulations governing the generation of hazardous waste were promulgated in 1980 and amended by HSWA in 1984.

The State of New York is authorized by the EPA to conduct a hazardous waste program under Section 3006 of RCRA, 42 U.S.C. Section 6926 and is authorized to enforce RCRA. The EPA has retained its authority to enforce the hazardous waste rules and regulations in the State of New York.

The Notice of Violation (NOV) portion of this letter (see Enclosure I) is issued pursuant to Section 3008 of the Solid Waste Disposal Act, as amended by RCRA and HSWA, 42 U.S.C. Sections 6901, 6928. Issuance of this NOV and compliance with its terms does not preclude EPA from taking formal enforcement action against you and/or your company, including a monetary penalty, under Section 3008 of RCRA, 42 U.S.C. Section 6928, or any other applicable regulation or statute.

Pursuant to the provisions of Section 3007 of RCRA, 42 U.S.C. Section 6927, EPA may require parties who handle or have handled hazardous waste to provide information relating to such wastes. Pursuant to the statutory provisions cited above, EPA hereby requires that you provide the information requested in Enclosure II, using the instructions and definitions included in Enclosure III. This information is necessary to determine the compliance status of Memorial Sloan Kettering.

Please provide the information requested no later than thirty (30) calendar days from receipt of this letter. Requests for additional time must be justified. Requests for additional time must be made within ten (10) calendar days of receipt of this letter. The response must be signed by a responsible official or agent of your company, using Enclosure IV of this letter. Failure to respond to this letter truthfully and accurately within the time provided may subject you to sanctions authorized by federal law, including but not limited to a potential enforcement action pursuant to Section 3008 of RCRA, 42 U.S.C. 6928. Please also note that all information you provide may be used in an administrative, civil judicial, or criminal action.

The response to the request in the attachment must be mailed to the following address:

Abdool Jabar
Environmental Engineer
RCRA Compliance Branch
Division of Enforcement and Compliance Assistance
U.S. Environmental Protection Agency- Region 2
290 Broadway, 21st Floor
New York, NY 10007-1866

You may, if you so desire, assert a business confidentiality claim covering all or part of the information herein requested. The claim may be asserted by placing on (or attaching to) the information at the time it is submitted, a cover sheet, stamped or typed with the legend, or other suitable form of notice, such as "trade secret," "proprietary," or "company confidential". The claim should set forth the information requested in 40 Code of Federal Regulations (40 C.F.R.) Section 2.204(e)(4). Information covered by such a claim will be disclosed by EPA only to the extent permitted by, and by means of procedures set forth in, 40 C.F.R. Part 2. EPA will review the information to determine the extent of confidentiality of the information, and may, at its discretion, challenge the confidentiality claim pursuant to the procedures set forth at 40 C.F.R. Part 2. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice to you.

This information request is not subject to the requirements of the Paperwork Reduction Act (PRA), as amended, 44 U.S.C. Part 3501 et seq.

Failure to respond in full to this requirement is a violation of RCRA and may result in federal enforcement action pursuant to Section 3008 of RCRA, 42 U.S.C. Section 6928, including the assessment of a monetary penalty. Such penalties may be up to \$ 37,500 per day per violation.

For consistency, please provide your answers in a format which is keyed to the sections as outlined in Enclosure III to this letter.

If you have any questions regarding this matter, please contact Mr. Abdool Jabar at (212) 637-4051 or jabar.abdool@epa.gov.

Sincerely yours,

Original signed by Derval Thomas for LV.

Leonard Voo, Chief
RCRA Compliance Branch
Division of Enforcement and Compliance Assistance

Enclosures: Enclosure I Notice of Violation
 Enclosure II Information Request
 Enclosure III Instructions & Definitions
 Enclosure IV Certification of Answers

cc: Kelly Lewandowski, Supervisor
 Hazardous Waste Compliance Unit
 New York State Department of Environmental
 Conservation

bcc: Derval Thomas, DECA-RCB
 Abdool Jabar, DECA-RCB
 RCRA files

ENCLOSURE I
NOTICE OF VIOLATION

On or about July 1-2, 6-8, 2015, a duly authorized representative of the U.S. Environmental Protection Agency conducted a compliance evaluation inspections of Memorial Sloan Kettering Cancer Center located at 417 E 68th Street, New York, NY 10021 and 1275 York Avenue, New York, NY 10021. At the time of the inspection, your facility was found to be out of compliance with regulations applicable to generators of hazardous waste.

Based on observations made during the inspection, it was determined that the following violations of RCRA regulations existed at your 417 E 68th facility:

1. Pursuant to 6 NYCRR Section 372.2(a) (2), a person who generates a solid waste must determine whether that solid waste is a hazardous waste using the procedures specified in that provision.

At the time of the inspection, MSK failed to make a hazardous waste determination of abandoned chemicals in the following rooms:

(i) Zuckerman Building, Room 2117, one 500ml. of hydrogen bromide which was leaking; one 500ml. of nitric acid which was crusting and one 500ml of nitric acid which was discolored.

(ii) Zuckerman Building, Room 2145 B, one carton of discarded chemicals was stored. Some were laying on their sides. The chemicals came from a laboratory which was closed.

(iii) Zuckerman Building, Room 2147 C, in a cabinet, there were two 250 ml containers which were corroded with unknown contents. There were a 100 ml. chlorosulfonyl isocyanet which was leaking, a 250 ml. of triethyl borate which was in a corroded container and one 300 ml. of potassium permanganate in a corroded container

(iv) Zuckerman Building, Room 1245, two plastic containers and one carton of discarded chemicals were stored. These chemicals came from a laboratory which was closed.

(v) Bobst Building, Histology-special staining. In this area, gram staining, AFB staining and Fite staining are done using acetone and acid alcohols as the decolorizers and the staining waste is poured down the drain.

(vi) Bobst Building, Histology-Frozen Section. In this area, staining is done and the waste is poured down the drain.

(vii) Schwartz Building, in the micro-bacteriology area, staining is done and the waste is poured down the drain.

2. Pursuant to 6 NYCRR Section 372.2(a)(8)(i)(a)(2), a generator may accumulate up to 55 gallons of hazardous waste or 1 quart of acutely hazardous waste in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without permit or interim status provided that the generator marks the containers with the words "Hazardous Waste" and other words that identify the contents of the containers.

- (a) At the time of the referenced inspection, MSK stored:
 - (i) one 500 ml container in the Zuckerman Building, Room 1451.
 - (ii) one 1 gallon container in the Zuckerman Building, Room 1219.
 - (iii) one 1 gallon container in the Zuckerman Building, Room 531.

The containers in the areas listed above were not marked with the words “hazardous waste” and other words to identify their contents.

- (b) At the time of the referenced inspection, MSK stored:
 - (i) One 5 gallon container in the Zuckerman Building, Room 1919.
 - (ii) One 1 gallon container in the Zuckerman Building, Room 419These containers were marked with words describing the wastes but were not marked with the words “hazardous wastes”.

- 3. Pursuant to 6 NYCRR Section 373-3.3 (a), a facility should be maintained and operated to minimize the possibility of a fire or explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water.

At the time of the inspection, MSK failed to operate its facility to minimize the possibility of a fire or explosion, or any planned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water in at least the following areas.

- (i) In the Zuckerman Building, Room 2117C, MSK was storing one 1 liter container of ethyl ether which was being used and the container had no date when it was first opened and no evidence that peroxide testing was done.
- (ii) In the Zuckerman Building, Room 2131C, MSK was storing one 1 liter container of ethyl ether which was being used and container had no date when it was first opened and had no evidence that peroxide testing was done.
- (iii) In the Zuckerman Building, Room 2135 B, MSK was storing one 4 liter container of ethyl ether which was being used and had no received date, no date when it was opened and no evidence that peroxide testing.
- (iv) In the Zuckerman Building, Room 2145 B, MSK was storing one 1 liter container of methyl tert ether which was being used and the container had no received date; and no date when it was opened and no evidence that peroxide testing was done.
- (v) In the Zuckerman Building, Room 2145 C, MSK was storing one liter of ethyl ether which had a date of 11/14 when it was first opened but had no date when peroxide testing were done.
- (vi) In the Zuckerman Building, Room 2147 C, MSK stored one 1 liter

container of ethyl ether which was opened in 2007 and there were no dates on the container to indicate that peroxide testing was done.

- (vii) In the Zuckerman Building, Room 1929, MSK was storing one 1 liter container of ethyl ether which had no date when it was first opened and no date when peroxide testing was done.
 - (viii) In the Zuckerman Building, Room 1937, MSK was storing one 4 liter container of ethyl ether which was being used and the container had no date when it was first opened and no evidence that peroxide testing was done. There was also an unopened 4 liter container of ethyl ether which had no received date.
 - (ix) In the Zuckerman Building, Room 1939, MSK was storing one 1 liter and one 4 liter container of ethyl ether which was being used and the container had no dates when the containers were first opened and no dates to indicate that peroxide testing were done.
 - (x) In the Zuckerman Building, Room 1437, MSK was storing one 100 ml. of ethyl ether which was being used and the container did not have a date when the chemical was first opened and no date to indicate that peroxide testing was done.
 - (xi) In the Zuckerman Building, Room 1439, MSK was storing two containers of ethyl ethers, one having a date of 11/12 when it was first used and the other had no date. There were no dates on both of the containers to indicate that peroxide testing were done.
 - (xii) In the Zuckerman Building, Room 2117, MSK was storing one 500ml. container of hydrogen bromide was leaking; one 500ml. container of nitric acid was crusting and one 500ml container of nitric acid was discolored.
 - (xiii) In the Zuckerman Building, Room 2145 B, one carton of discarded chemicals was stored. There were incompatible chemicals stored in the box and some were laying on their sides.
 - (xiv) In the Zuckerman Building, Room 1245, MSK stored two plastic bins and one carton of discarded chemicals. These chemicals came from a laboratory which was closed.
4. Pursuant to 6 NYCRR Section 373-3.3 (d), facility communications or alarm systems, fire protection equipment, and spill control equipment are tested and maintained as necessary to assure their proper operation in time of emergency.

At the time of the inspections, two fire extinguishers in Rooms 419 and 431 of the Zuckerman Building were not inspected for the month of June.

5. Pursuant to 6 NYCRR Section 374-3.2 (e)(5), a small quantity handler of universal waste must label each lamp or each container or package containing such lamps with the words Universal Waste-Lamps or Waste Lamps or Used Lamps.

At the time of the inspection, MSK was storing one fiber container of 4 foot fluorescent light bulbs and the container was not labeled.

Based on observations made during the inspection on or about July 7-8, 2015, it was determined that the following violations of RCRA regulations existed at your 1275 York Avenue facility:

6. Pursuant to 6 NYCRR Section 372.2(a)(8)(i)(a)(2), a generator may accumulate up to 55 gallons of hazardous waste or 1 quart of acutely hazardous waste in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without permit or interim status provided that the generator marks the containers with the words "Hazardous Waste" and other words that identify the contents of the containers.

At the time of the referenced inspection, MSK stored 4 trays of old chemicals in their chemical storage area and the containers were not marked with the words "hazardous waste" and other words to describe their contents.

7. Pursuant to 6 NYCRR Section 373-3.3 (a), a facility should be maintained and operated to minimize the possibility of a fire or explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water.

(a) At the time of the inspection, MSK failed to operate its facility to minimize the possibility of a fire or explosion, or any planned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water in the Rockefeller Building, Room 1361 B, where it stored one 500 ml. of dioxane which was opened on 10/14 and did not perform peroxide testing.

(b) At the time of the inspection, MSK stored 4 trays of old chemicals which was determined to be waste in their chemical storage area and the chemicals were not stored according to compatibility.

ENCLOSURE II

Based on a review of the information obtained during this RCRA inspection (the "Inspection"), we have determined that the following information is required to evaluate the compliance of the Memorial Sloan Kettering Cancer Center:

1. With regards to the violations cited in the above Notice of Violation (Enclosure I), please provide (1) a description of the actions taken to correct the violations cited in items 1 through 5 for the facility located at 417 E 68th Street and 1 through 2 for the facility located at 1275 York Avenue, and provide documentation, including photographs (where applicable), verifying that each violation has been corrected; or (2) a rebuttal of the violations.

The relevant time period for the following questions is July 2012 through the date of receipt of this letter, unless otherwise specified.

2. In some of your laboratories, chemical storage areas and chemical preparation areas within these laboratories, EPA observed a variety of possibly hazardous materials being abandoned or stored. In many cases, it appeared that these materials were being accumulated or stored before or in lieu, of disposal
 - a. In a number of the laboratories, chemical storage areas and chemical preparation area, there were some containers of chemicals; some of these containers were old and leaking. In some cases, those chemicals were stored in containers in poor condition and there was crusting and poor storage practices. Guidance from regulatory agencies suggests that the amount of chemicals in laboratories be kept at minimum and if stored in a central area, it should be stored properly. Was MSK following any such guidance(s)? If yes, provide copies of the guidance(s).
 - b. A description of the anticipated or proposed fate of the material (e.g., use, recycling, disposal as waste);
 - c. If the chemical material was or will be discarded, please state the method by which it was or will be discarded, where it was or will be discarded, and when it was or will be discarded;
 - d. If the chemical material was or will be discarded, state whether that chemical is a hazardous waste and the basis for that determination (include copies of the results of chemical and physical analyses), and provide copies of Uniform Hazardous Waste Manifests, including Land Disposal Restriction Form, as applicable, for each disposal shipment;

- e. If the chemical material will be reused/recycled, please state the method by which it was or will be reused/recycled, where it was or will be reused/recycled, and when it was or will be reused/recycled.
- f. Were incompatible chemicals stored in these areas? If the answer to this question is yes, state what the chemicals were and where they were stored. If the answer is no, please explain.

For this question, the groups of possibly hazardous materials and/or wastes being accumulated or stored in the following areas:

- (i) Zuckerman Building, Room 2117, one 500 ml. of hydrogen bromide which was leaking; one 500 ml. of nitric acid which was crusting and one 500 ml of nitric acid which was discolored.
- (ii) Zuckerman Building, Room 2145 B, one carton of discarded chemicals was stored. Some were laying on their sides. The chemicals came from a laboratory which was closed.
- (iii) Zuckerman Building, Room 1245, two plastic containers and one carton of discarded chemicals were stored. These chemicals came from a laboratory which was closed.
- (iv) Rockefeller Building, 13th Floor, in the chemical storage room 4 trays of chemicals were to be disposed.
- (v) Any other areas that stored discarded chemicals and not mentioned above.

3. (a) With regards to the storage of ethyl ethers and other peroxide forming compounds, MSK stated that it had a Standard Operating Procedure (SOP) on how to handle ethyl ethers and other peroxide forming compounds, provide a copy of the SOP.

(b) The inspections showed that in all but two laboratories in which ethers and peroxide forming compounds were used, the SOP was not followed. Moving forward, explain how you intend to oversee the storage of such compounds.

(c) During the inspection, only some of laboratories were visited, did MSK visit the other laboratories to observe how ethers and other peroxide forming materials were stored. If yes, provide the dates, room numbers and the findings. If no, provide a schedule when this will be done,

4. With regards to the storage of chemicals in the laboratories, it was observed that in many cases, the shelves were cluttered, the chemicals were not stored according to compatibility, oxidizers and sodium azide were improperly stored and liquid chemicals some of which were corrosives were stored above eye level. Containers of chemicals were stacked on top of each other, some were overhanging on the shelves and some were laying on their sides. In addition, the laboratories and area where flammable materials are used and stored were cluttered with paper, cardboard boxes and other materials.

Provide a plan describing how you intend to improve your handling of chemical storage in your facility and how you would implement and maintain best management practices in the laboratories.

ENCLOSURE III
INSTRUCTIONS AND DEFINITIONS

In responding to this Request for Information, apply the following instructions and definitions:

1. The signatory should be an officer or agent who is authorized to respond on behalf of the company or facility. The signatory must complete and return the attached Certification of Answers to Responses to the Request for Information.
2. A complete response must be made to each individual question in this request for information. Identify each answer with the number of the question to which it is addressed.
3. In preparing your response to each question, consult with all present and former employees and agents of the company or facility who you have reason to believe may be familiar with the matter to which the question pertains.
4. In answering each question, identify all contributing sources of information.
5. If you are unable to answer a question in a detailed and complete manner or if you are unable to provide any of the information or documents requested, indicate the reason for your inability to do so. If you have reason to believe that there is an individual who may be able to provide more detail or documentation in response to any question, state that person's name and last known address and phone number and the reasons for your belief.
6. If you cannot provide a precise answer to any question, please approximate and state the reason for your inability to be specific.
7. For each document produced in response to this Request for Information, indicate on the document or in some other reasonable manner, the number of the question to which it applies.
8. If anything is deleted from a document produced in response to this Request for Information, state the reason for and the subject matter of the deletion.
9. If a document is requested but is not available, state the reason for its unavailability. In addition, identify any such document by author, date, subject matter, number of pages, and all recipients and their addresses.
10. The company and/or facility for the purposes of this Request for Information is Memorial Sloan Kettering Memorial Sloan Kettering Cancer Center located at 417 E 68th Street, New York, NY 10021 and 1275 York Avenue, New York, NY 10021.

11. A generator of hazardous waste for the purposes of this Request for Information shall be defined as any person (which includes this facility), by site, whose act or process produces hazardous waste or whose act first causes a hazardous waste to become subject to regulation.
12. Solid waste shall be defined for the purposes of this Request for Information as that term is defined in Section 1004(27) of RCRA, as amended, 42 U.S.C. Part 6903(27).
13. Hazardous waste shall be defined for the purposes of this Request for Information as that term is defined in Section 1004(5) of RCRA, as amended, 42 U.S.C. Part 6903(5).
14. Manage shall be defined for the purposes of this Request for Information as to market, generate, treat, store, dispose or otherwise handle.

ENCLOSURE IV
CERTIFICATION OF ANSWERS

CERTIFICATION OF ANSWERS TO REQUEST FOR INFORMATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in response to EPA's Request for Information, and all documents submitted herewith; that the submitted information is true, accurate, and complete; and that all documents submitted herewith are complete and authentic, unless otherwise indicated. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Name (print or type)

SIGNATURE _____

DATE _____

TITLE